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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,270	08/27/2003	Yim Bun Patrick Kwan	081468-0305336	5209
909	7590	01/16/2004	EXAMINER	
PILLSBURY WINTHROP, LLP			FERNANDEZ, KALIMAH	
P.O. BOX 10500			ART UNIT	PAPER NUMBER
MCLEAN, VA 22102			2881	

DATE MAILED: 01/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<b>Application No.</b> 10/648,270	<b>Applicant(s)</b> PATRICK KWAN ET AL.	
	<b>Examiner</b> Kalimah Fernandez	<b>Art Unit</b> 2881	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:  
    1. ☐ Certified copies of the priority documents have been received.  
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                      | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____   |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                             | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>8-27-03</u> | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Double Patenting*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claim 1 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6635887. Although the conflicting claims are not identical, they are not patentably distinct from each other because the differences amount to mere obvious variations.

3. Specifically, the differences between the instant claim and patented claim is the recitation of "said first and second sliders being mounted

together so as to form a body that is substantially rigid in translation in said plane and in rotation about an axis normal to said plane” in claim 1 of ‘887.

4. It would have been obvious to an ordinary artisan to leave out the above-mentioned recitation since it has been held that omission of element and its function in a combination where the remaining elements perform the same function as before involves only routine skill in the art. In addition, an ordinary artisan would have obvious motivation to leave out the above-mentioned element because of the obvious advantage of ease-of-use and to minimize the risk of breakdown due to rotation errors.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat No 5,815,246 issued to Sperling et al and US Pat No 4,655,594 issued to Wittekoek et al.

3. Sperling et al disclose a positioning device in a lithography apparatus (col.1, lines 7-29).

4. Sperling et al disclose a lithographic device having a radiation source (11) (i.e. illumination system); a focusing unit (i.e. a projection system) (25); a first object table holding the mask (i.e. mask holder)(9); a second object table holding a sample (i.e. substrate holder)(5); and a positioning system (3) (col.7, lines 34-66; fig. 1).
5. Sperling et al disclose first and second parallel side-beams (45,47) having translators (51,53) (col.8, lines 33-41).
6. Sperling et al disclose first and second motors that move said first and second sliders longitudinally of their respective side beams (col.8, lines 30-33).
7. Sperling et al disclose a cross-beam (49) mounted near first and second ends thereof to said first and second sliders (51,53) (i.e. translators).
8. Sperling et al disclose said cross-beam (49) and said first and second sliders (51,53) being mounted together so as to form a body that is substantially rigid in translation in said plane (see fig. 2) and in rotation about an axis normal to said plane (col.8, lines 61-65).

9. Sperling et al disclose a third motor that moves said third slider (i.e. translator) longitudinally of said cross-beam (49), said third slider/translator having an object holder (5) (col.8, lines 47-50; fig. 2).
10. Sperling et al does not disclose a thrust bearing pivotally mounted to said first slider as recited.
11. However, Wittekoek et al disclose providing air bearing (i.e. thrust bearing) (col.2, lines 65-68; col.3, lines 41-47).
12. It would have been obvious to an ordinary artisan to incorporate the teachings of Wittekoek et al into Sperling et al since Wittekoek et al teaches improved accuracy (col.2, lines 15-25).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kalimah Fernandez whose telephone number is 703-305-6310. The examiner can normally be reached on Mon-Thurs between 7:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R Lee can be reached on 703-308-4116. The

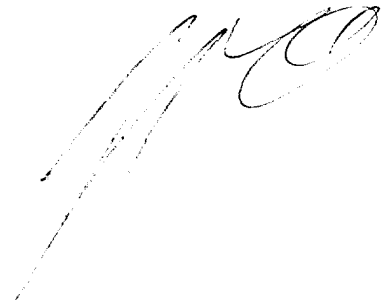
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fax phone number for the organization where this application or proceeding is assigned is 703-872-9318.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

kf

A handwritten signature in black ink, appearing to be 'J. M. O.', is located in the lower right quadrant of the page.